DEPARTMENT OF THE ARMY
U. S. Army Corps of Engineers
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CECW-OD/CECW-EP

Circular
No. 1130-2-206

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Project Operations
DISSEMINATION OF ELECTRONIC GEOSPATIAL DATA ON NAVIGATION PROJECTS

1. Purpose

This circular provides interim policy and procedures for distributing electronic geospatial data on navigation projects to public and private users in conformance with the provisions of Executive Order (EO) 12906, Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure (NSDI).

2. Applicability

This circular is applicable to all major subordinate commands, districts, laboratories, and field operating activities having responsibility for disseminating geographic information to the public on the status or condition of civil works navigation projects. This includes, but is not limited to, planimetric, topographic, hydrographic, tabular, stage, discharge and other related geospatial data contained in Geographic Information Systems (GIS) for the inland waterways, Great Lakes and coastal areas.

3. References

a. Executive Order 12906, 11 April 1994, Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure.

b. Tri-Service Architect-Engineer (A-E) Deliverables Standards, Tri-Service CADD/GIS Technology Center, (Release 1.0, October 1995)

*c. T*ri-Service A/E/C CADD Standards, Tri-Service CADD/GIS Technology Center, (June 1995)

d. Tri-Service Spatial Data Standards, Tri-Service CADD/GIS Technology Center, (Release 1.4, July 1995)

e. Spatial Data Transfer Standard (SDTS) (Federal Information Processing Standard 173); US Department of Commerce 1992, National Institute of Science and Technology, Washington, DC

f. ER 1110-1-8156, Policies, Guidance, and Requirements for Geospatial Data and Systems (Draft). (Replaces EC 1110-1-83).

g. ER 1130-2-520, Navigation and Dredging Operations and Maintenance Activities (Draft).

4. Background

EO 12906, reference 3a, prescribes Federal policy and establishes mechanisms for acquiring, processing, storing, distributing, and improving utilization of geospatial data. The EO applies to the geospatial data portion of this circular and in particular digital geographic databases for USACE navigation projects. Draft ER 1110-1-8156 (reference 3f) provides implementing guidance for the EO. It states that HQUSACE shall develop a plan to make USACE geospatial data holdings available to the public and identify additional technologies and policies needed regarding releasing data to the public. This circular provides additional policy and guidance for distributing electronic geospatial data on navigation projects.

5. Policy

a. Digital Mapping, Charting and Related GIS Data. Digital planimetric, topographic, hydrographic, stage, discharge and other related GIS data shall be made available to public and private users through the USACE node on the National Geospatial Data Clearinghouse. This node is accessible through the Internet via the world wide web (www) at "http://corps_geo1.usace.army.mil." This node was specifically designed and established to provide USACE geographic data, such as map and chart data, to public and private users. Periodic project and channel surveys should be uploaded to the USACE node as soon as practical after the survey is completed.

b. User Access Fees. No charge shall be made for geospatial data downloaded from this or other Internet servers maintained by the Corps.

c. Inland Waterway Charts. Digital data contained in current inland waterway chart publications shall be placed on the USACE Clearinghouse node for public use. This shall include waterway planimetric maps, bridge clearance data, and other data now contained in hard copy publications sold to the general public and distributed to other public agencies.

d. Data Transfer Standards. Until USACE data formats, standards and translators are finalized, USACE commands may use any industry standard format for

drawings and GIS data placed on the USACE node, e.g., DXF, DGN, ARC/INFO, ERDAS, GRASS, etc. Reference 3e, SDTS, is the prescribed Federal transfer standard for geographic data in general. DX-90 is the prescribed international transfer standard for hydrographic and bathymetric data. HQUSACE has contracted for the development of software to translate from the most common industry formats used in USACE to DX-90. Once this is made available to USACE commands, DX-90 will become the standard format for exchanging hydrographic data with both public and private users.

e. Metadata. The appropriate metadata file describing the geographic data file(s) content and format must also be placed on the server along with the geographic data file(s). Tools and instructions for creating the metadata files are described in reference 3f and are also located on the USACE Clearinghouse node.

f. Third Party Chart Vendors. Private vendors are encouraged to use USACE geospatial data in preparation of electronic chart systems (ECS) that integrate this data with satellite or other positioning systems to improve navigation safety on inland, Great Lakes, and coastal projects maintained and surveyed by USACE. USACE commands should not develop such systems or products in competition with the private sector; nor should they market, distribute, or sell ECS data or products or related GIS data or products. This data will be provided free of charge via the USACE node.

g. Hard Copy Maps and Charts. Current hard copy map or chart products shall continue to be published and disseminated in accordance with Chapter 2 of reference 3g, Aids to Navigation, Navigation Charts, and Related Data (Draft).

h. Distribution of Digital Data to NOAA, USCG, other Federal Agencies, Project Sponsors, Port Authorities, Pilots, and other Private Entities. Other Federal agencies and public and private users will be expected to access the USACE node for digital or electronic surveys, maps, charts, tabular reports, and related GIS data. Commands will honor specific requests for traditional hard copy paper products from agencies, sponsors, or individuals who cannot access the USACE Clearinghouse node.

FOR THE COMMANDER:

i. Tri-Service CADD/GIS Technology Center Standards. This Center has developed a series of standards for CADD and GIS applications. These include: (1) Architect-Engineer (A-E) Deliverables Standards, (2) Architectural, Engineering, and Construction (A/E/C) CADD Standards (A/E/C CADD Standards), and (3) Tri-Service GIS Spatial Data Standards (TSSDS), see references 3b, 3c, and 3d. The latter of these, 3d, are now being expanded to include hydrographic and bathymetric data sets and the integration of DX-90 formats into the TSSDS. Upon completion of this integration, TSSDS shall be used for all geospatial data covered by this circular, and shall be used in the generation of maps, charts, CADD, GIS, or other digital data provided to the general public.

(1) A-E Deliverables Standards. These standards provide guidance, sample Commerce Business Daily announcement language, and recommended contract language for the development and delivery of CADD and mapping/GIS products by an A-E contractor.

(2) A/E/C CADD Standards. The A/E/C CADD Standards address presentation graphics, such as line thicknesses, color, styles, and text types, and drawing/sheet styles and formats, standard symbology, electronic file organization, naming, and layer/level assignments. The A/E/C CADD Standards are appropriate for applications of large-scale data inside of a building and that typically used with a CADD system for engineering and design.

(3) TSSDS. The TSSDS includes a delineation of graphic elements and non-graphic attribute tables and domain lists describing these elements which are indexed into a schema or data dictionary. It also includes graphic symbology and other display and digital characteristics. The TSSDS are appropriate for applications of small- and large-scale data outside of buildings, typically used with a GIS for installation management, civil works projects, and master planning.

6. Proponency

The proponents for policy contained in this circular are CECW-OD (ATTN: Mike Kidby) and CECW-EP (ATTN: Bill Bergen). Technical issues shall be primarily addressed to CECW-EP.

Major General, USA
Director of Civil Works